WHAT IS CLAIMED IS:

1. A gas turbine combustor in which a part or all of the wall of the combustor disposed within an induction chamber is formed with an acoustic energy absorbing member that can absorb the acoustic energy of a combustion variation generated within the combustor.

2. The gas turbine combustor according to claim 2, wherein the acoustic energy absorbing member is constructed of a thin corrugated plate in a circumferential direction.

3. The gas turbine combustor according to claim 3, wherein the corrugated plate is formed by connecting a plurality of corrugated plates in a circumferential direction, with their end portions superimposed on each other.

4. The gas turbine combustor according to claim 3, wherein the thickness and sizes of the divided corrugated plates are changed to match a plurality of frequency components of a combustion variation.

5. The gas turbine combustor according to claim 3, wherein the superimposed connection portions have clearances in a radial direction through which air can pass.

6. The gas turbine combustor according to claim 1, wherein the acoustic energy-absorbing member is a high-temperature-proof perforated material.

7. The gas turbine combustor according to claim 1, wherein the acoustic energy absorbing member is constructed of a perforated plate and a back plate disposed at the outside of the perforated plate in a radial direction at a distance from the perforated plate.

8. The gas turbine combustor according to claim 7, wherein the back plate has openings through which air can pass.

9. The gas turbine combustor according to claim 7, wherein a honeycomb plate is disposed between the perforated plate and the back plate.

A2 10. The gas turbine combustor according to claim 7, wherein the diameter of holes in the perforated plate is 5 mm or less.

11. The gas turbine combustor according to claim 7, wherein there are a plurality of diameters for the openings on the perforated plate.

12. The gas turbine combustor according to claim 7, wherein a distance L1 between the openings in a longitudinal direction and a distance L2 between the openings in a circumferential direction on the perforated plate respectively have a relationship of $0.25 \leqq L1 / L2 \leqq 4$.

13. The gas turbine combustor according to claim 7, wherein the distance between the openings on the perforated plate is not uniform.

14. The gas turbine combustor according to claim 7, wherein the distance between the perforated plate and the back plate is not uniform.

15. The gas turbine combustor according to claim 7, wherein the thickness of the perforated plate is not uniform.

16. The gas turbine combustor according to claim 7, wherein the perforated plate is cooled with vapor.

17. The gas turbine combustor according to claim 7, wherein cooling air is introduced into a gap between the perforated plate and the back plate.

18. The gas turbine combustor according to claim 1, wherein there is disposed a covering member at the outside of the acoustic energy absorbing member in a radial direction, for covering the acoustic energy absorbing member at a distance from the acoustic energy absorbing member.

19. The gas turbine combustor according to claim 18, wherein cooling air is introduced into a gap between the acoustic energy absorbing member and the covering member.

20. The gas turbine combustor according to claim 1, wherein the acoustic energy absorbing member and/or the covering member are reinforced with a frame that extends in a circumferential direction and/or a longitudinal direction.